

# Installation Instructions Supplement

for use by heating contractor



## Direct Vent Systems, Part No. Z005 875 (FDVS-4)

for Vitorond 100 boilers

### Safety and Installation Requirements

Please ensure that these instructions are read and understood before commencing installation. Failure to comply with the instructions listed below can cause **product/property damage, severe personal injury, and/or loss of life.**

#### Working on the equipment

The installation, adjustment, service, and maintenance of this product must be done by a **licensed professional heating contractor** who is qualified and experienced in the installation, service, and maintenance of hot water boilers. There are no user serviceable parts on the boiler, burner, or control.

Ensure **main power** supply to equipment, the heating system, and all external controls has been **deactivated**. **Close main oil supply valve.** Take precautions in both instances to avoid accidental activation of power during service work.



*Ensure that the installation literature of other applicable components is referenced.*

### General Information

#### Standard installation

Boiler Model	VR1	-22	-27	-33
Rear	inches	6	6	6
	mm	150	150	150
Sides	inches	0	0	0
	mm	0	0	0
Flue	inches	1	1	1
	mm	25	25	25
Floor	Combustibles			

#### IMPORTANT

**Advise owner to keep direct vent termination and air intake free of debris, snow and ice.**



#### WARNING

**Viessmann will not assume any responsibility for possible effects of an obstructed air intake or exhaust termination.**

NOTE: Surface discoloration on the outside of the building may occur if the burner is not properly adjusted. Viessmann will not accept any responsibility for such discoloration.

NOTE: Direct Vent exhaust system operates under a positive pressure developed by the burner. Make sure all vent connections and observation port on the boiler are sealed air-tight by tightening screws and using high temperature silicone sealant if necessary.

NOTE: The vent components must be supplied without any alteration except for the length of the flex pipe to be cut to the desired length.

#### Alcove installation

Boiler Model	VR1	-22	-27	-33
Rear	inches	6	6	6
	mm	150	150	150
Sides	inches	0	0	0
	mm	0	0	0
Flue	inches	1	1	1
	mm	25	25	25
Top*	inches	6	6	6
	mm	150	150	150
Floor	Combustibles			

\* 24" with Vitotronic control.

The insulated oil direct vent system is rated for a 1" clearance to combustibles.



## Installation of Insulated Stainless Steel Flexible Oil Vent



In addition to the following instructions, also consult *Field Controls Direct Vent System* manual for detailed instructions on how to install the venting system.



Refer to *Vitorond 100 Installation and Service Instructions*.

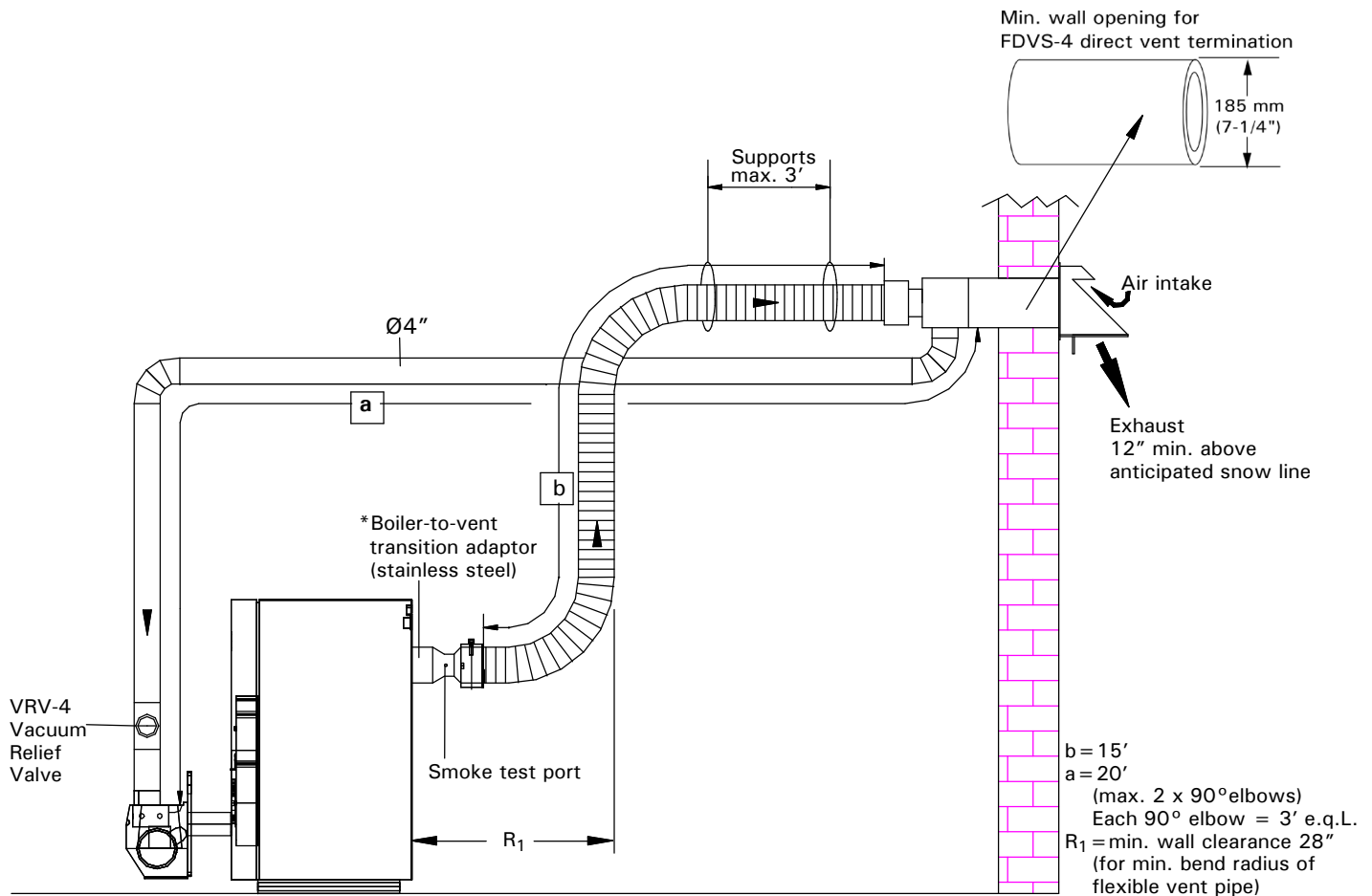


Fig. 1

Use a 4" to 3" reducer (not supplied) to connect an intake pipe to the Riello burner.

If no air intake is required a=0 then provide combustion air supply to mechanical room where the burner is installed. The burner requires fresh air for safe operation and must be installed in a mechanical room where there are provisions for adequate combustion and ventilation air.

Avoid dips in the venting system when using the flexible insulated stainless steel oil vent.

The direct vent kit includes a VRV-4 vacuum relief valve which must be installed in the air intake pipe as close as possible to the burner when using a Beckett burner (see Fig. 1).

\*The direct vent kit includes a Viessmann-specific stainless steel boiler-to-vent transition adaptor.

### IMPORTANT

Do not install the regular galvanized vent pipe adaptor shipped with the boiler. This galvanized vent pipe adaptor is intended for chimney venting application and therefore must be discarded in a direct vent application.

## Burner Set-up (Beckett)

### Electrical connections (with Aquastat control)



#### WARNING

Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.

Installations must follow these codes and requirements:

- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.

- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

- ▶ All field supplied nominal 120 VAC voltage wiring must be sheathed in a flexible metal conduit.
- ▶ Disconnect means, overload protection and low water cut-off must be provided as required by local codes.
- ▶ Connect incoming line voltage HOT (L1) wire to terminal L1, and N to terminal L2 of the Honeywell high limit control (see wiring diagram on page 5).

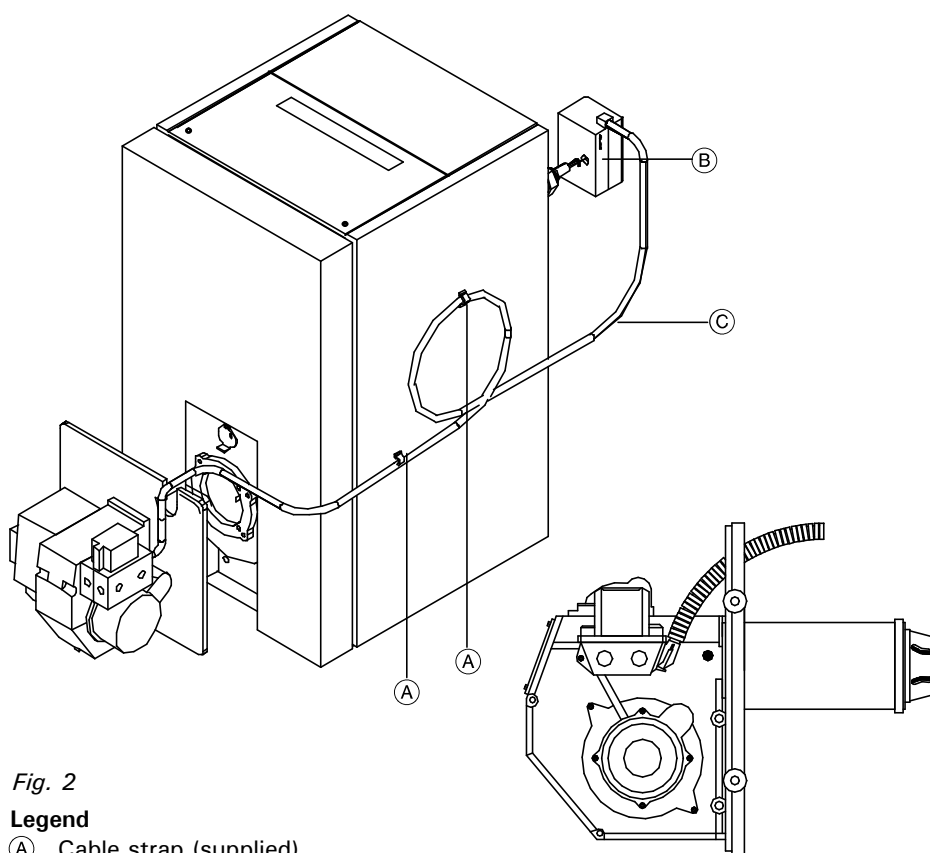


Fig. 2

#### Legend

- (A) Cable strap (supplied)
- (B) Honeywell high limit control
- (C) Burner wiring harness (supplied)



#### WARNING

Ensure that burner wiring harness is properly attached and secured to the boiler side panel using the supplied cable straps as depicted above. The cable strap must be coiled on the boiler side panel so that no slack is left, allowing the burner/boiler door to be swung open without disconnecting the burner wiring harness from the burner. Failure to heed this warning may result in personal injury.

### Burner wiring

#### IMPORTANT

The R7184 or GeniSys 7505P primary control with valve-on delay (pre-purge) and burner motor-off delay (post-purge - factory default settings can be field adjusted), requires a constant 120 VAC power source supplied to the BLACK wire on the control (see wiring diagram on following page).

1. The cover mounting plate is not a conduit connection point. Pass conduit and attached connector through the front opening in the mounting plate or through one of the knockouts on either side of the cover and attach it directly to the burner-mounted 4x4 electrical junction box.

### Room thermostat wiring

1. Install thermostat on inside wall away from influences of drafts, hot or cold water pipes, lighting fixtures, television, sun rays or fireplaces.
2. Follow instructions supplied with room thermostat. If it has a heat anticipator, set heat anticipator in thermostat to match power requirements of equipment connected to it. Boiler wiring diagrams give setting for standard equipment.

## Burner Set-up (Beckett) *(continued)*

### Electrical connections (with Aquastat control) *(continued)*



#### **WARNING**

**Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.**

*Installations must follow these codes and requirements:*

- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.

- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

#### Burner wiring harness (supplied)

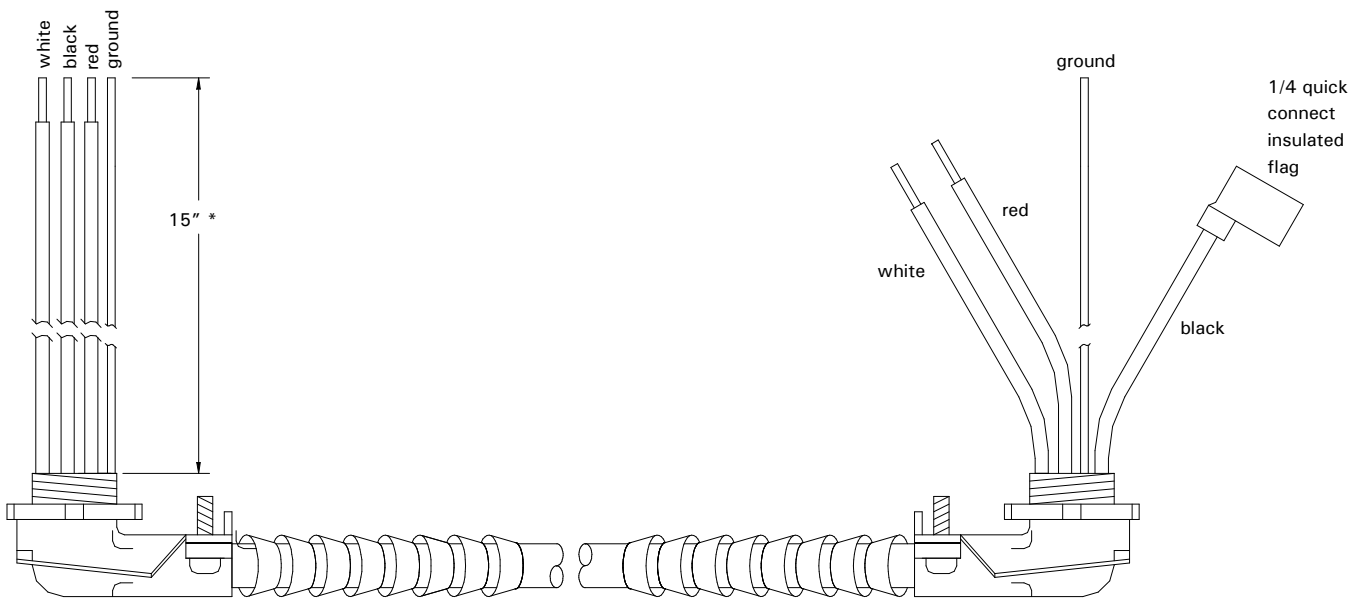


Fig. 3

## Burner Set-up (Beckett) (continued)

### Wiring diagram (with Aquastat control) with outdoor reset module

#### **! WARNING**

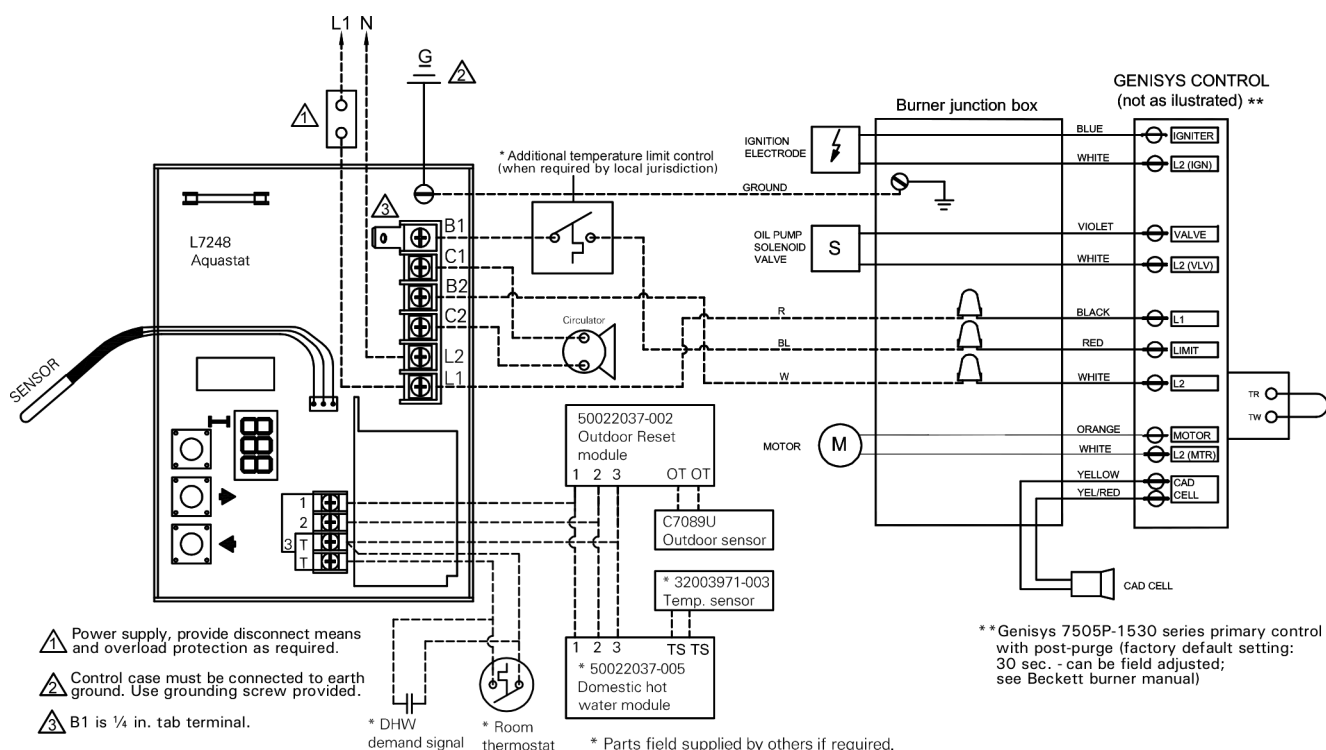
**Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.**

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- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.

- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

- All field supplied nominal 120 VAC voltage wiring must be sheathed in a flexible metal conduit.
- Disconnect means, overload protection and low water cut-off must be provided as required by local codes.
- Connect incoming line voltage HOT (L1) wire to terminal L1, and N to terminal L2 of the Honeywell high limit control (see wiring diagram below).



#### **! WARNING**

**Ensure that the burner cycles ON and OFF on proper call for heat before leaving the job site. Failure to do so may lead to boiler runaway situation, which may lead to property damage, personal injury or death.**

#### **! CAUTION**

**A field supplied manual reset high limit control must be installed at the outlet pipe of the boiler to interrupt burner operation should the factory supplied high limit control fail. This field supplied high limit control must be set 20°F above the setting of the factory supplied high limit control. The setting of this field supplied high limit control must never be greater than 220°F.**

## Burner Set-up (Beckett burner with GeniSys primary control) *(continued)*

### Wiring diagram (Vitorond 100 with Beckett (NX) burner and Honeywell Aquastat)

#### **! WARNING**

**Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.**

*Installations must follow these codes and requirements:*

- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.

- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

- All field supplied nominal 120 VAC voltage wiring must be sheathed in a flexible metal conduit.
- Disconnect means, overload protection and low water cut-off must be provided as required by local codes.
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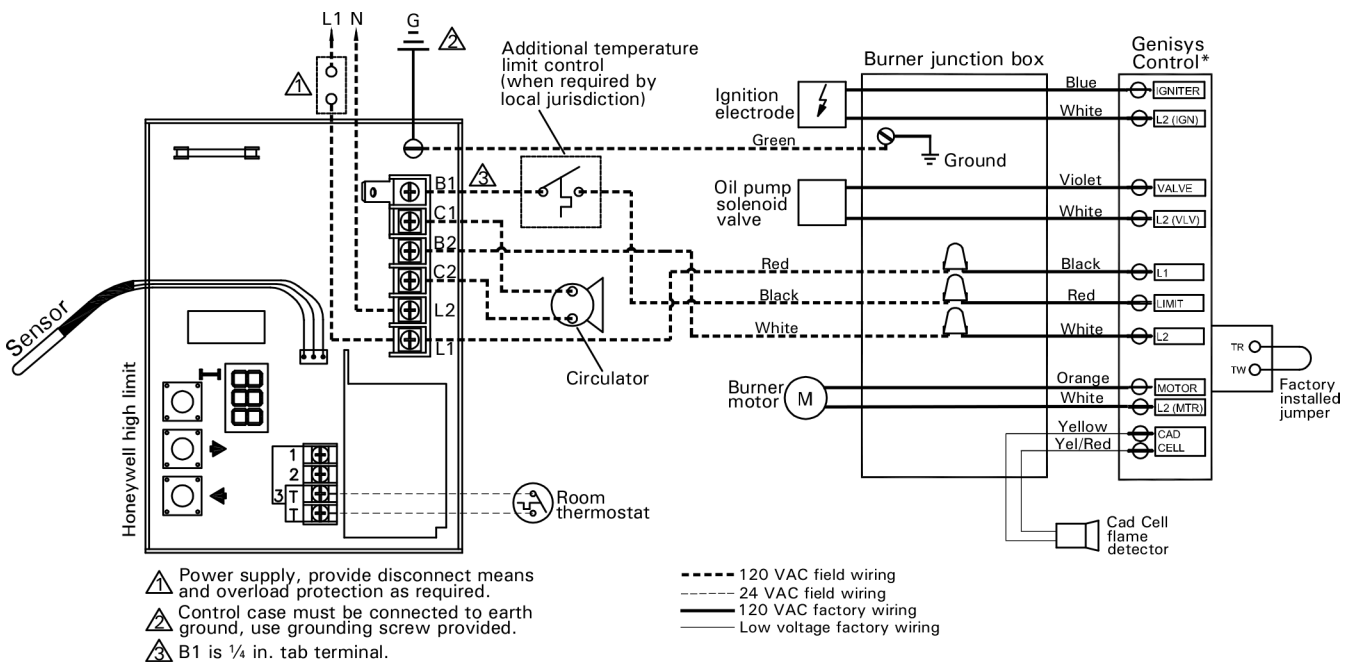


Fig. 5

#### **! WARNING**

**Ensure that the burner cycles ON and OFF on proper call for heat before leaving the job site. Failure to do so may lead to boiler runaway situation, which may lead to property damage, personal injury or death.**

#### **! CAUTION**

**A field supplied manual reset high limit control must be installed at the outlet pipe of the boiler to interrupt burner operation should the factory supplied high limit control fail. This field supplied high limit control must be set 20°F above the setting of the factory supplied high limit control. The setting of this field supplied high limit control must never be greater than 220°F.**

## Burner Set-up (Beckett) *(continued)*

### Electrical connections (with Vitotronic control)

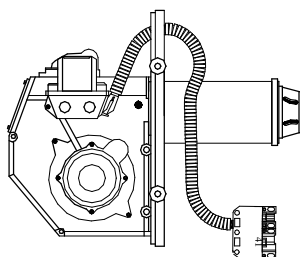
#### **WARNING**

Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.

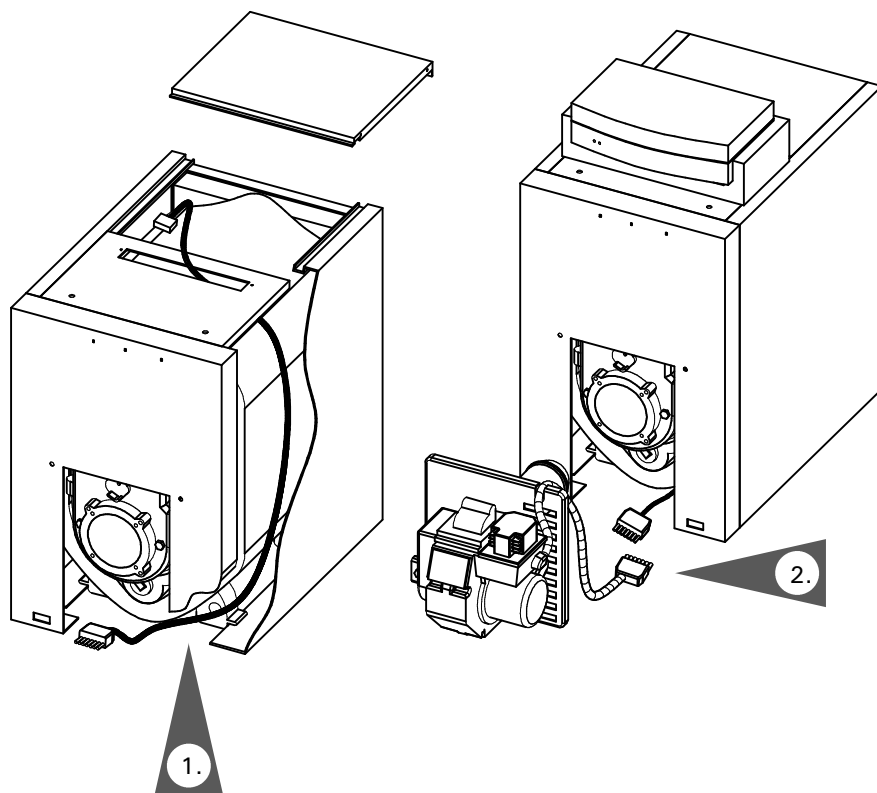
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- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.

- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.



#41 plug-in connector



### Burner wiring

#### **IMPORTANT**

The R7184 primary control with valve-on delay (pre-purge) and burner motor-off delay (post-purge - factory default settings can be field adjusted), requires a constant 120 VAC power source supplied to the **BLACK** wire on the control (see wiring diagram on page 9).

1. The cover mounting plate is not a conduit connection point. Pass conduit and attached connector through the front opening in the mounting plate or through one of the knockouts on either side of the cover and attach it directly to the burner-mounted 4x4 electrical junction box.

### Electrical connections

1. Run the #41 plug-in connector cable of the Vitotronic control down behind the front panel of the boiler and out through the bottom. (Fig. 5)
2. Connect the female #41 plug of the burner to the male #41 plug of the Vitotronic control. (Fig. 5)

Fig. 6

### **Burner Set-up (Beckett)** *(continued)*

#### **Electrical connections (with Vitotronic control)** *(continued)*

##### **Room thermostat wiring**

1. Install thermostat on inside wall away from influences of drafts, hot or cold water pipes, lighting fixtures, television, sun rays or fireplaces.
2. Follow instructions supplied with room thermostat. If it has a heat anticipator, set heat anticipator in thermostat to match power requirements of equipment connected to it. Boiler wiring diagrams give setting for standard equipment.



## Burner Set-up (Beckett) *(continued)*

### Electrical connections (with Vitotronic control) *(continued)*

#### **! WARNING**

**Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.**

*Installations must follow these codes and requirements:*

- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.
- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

#### Burner wiring harness (supplied)

Closed end connectors are factory installed on RED, ORANGE and BLUE wires. These RED, ORANGE and BLUE wires may or may not be used in your burner application. See wiring diagram in this manual which is specific to your burner application. Do not remove or cut any of the closed end connectors of the RED, ORANGE or BLUE wires, unless it is necessary to do so. RED wire is live (120VAC) at all times. Do not remove or cut its closed end connector unless it is necessary to do so. Failure to heed the above instructions may cause severe personal injury or loss of life.

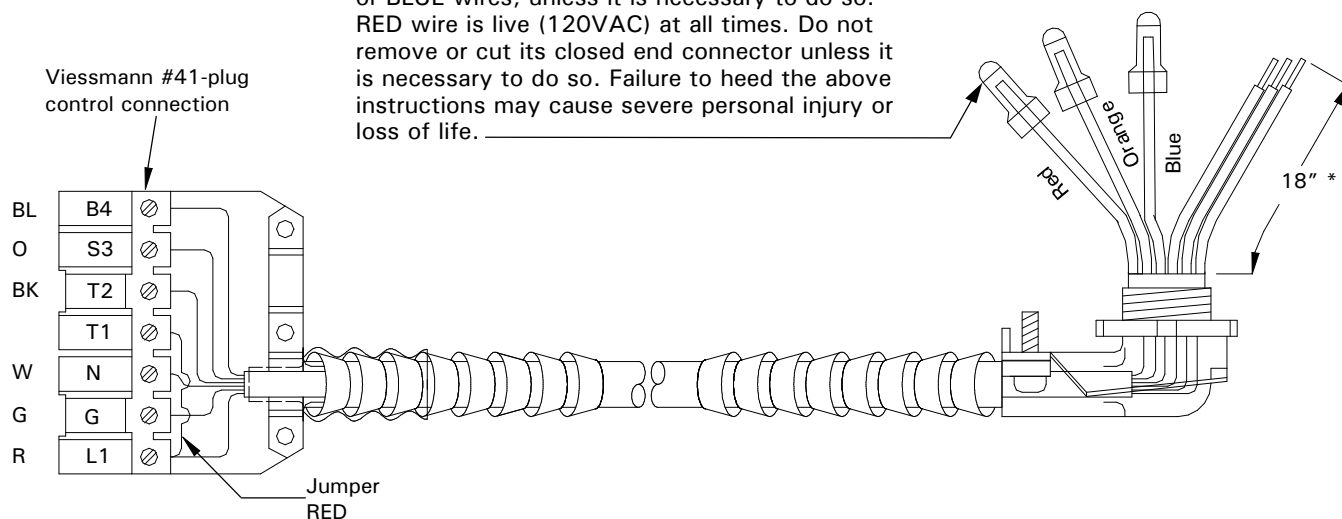


Fig. 7


#### Legend

BL	Blue
O	Orange
BK	Black
W	White
G	Green / Ground
R	Red

\* If Beckett burner is being installed, cut this length to 6" for connection to burner junction box (located under the burner primary control).

Burner Set-up (Beckett) (continued)

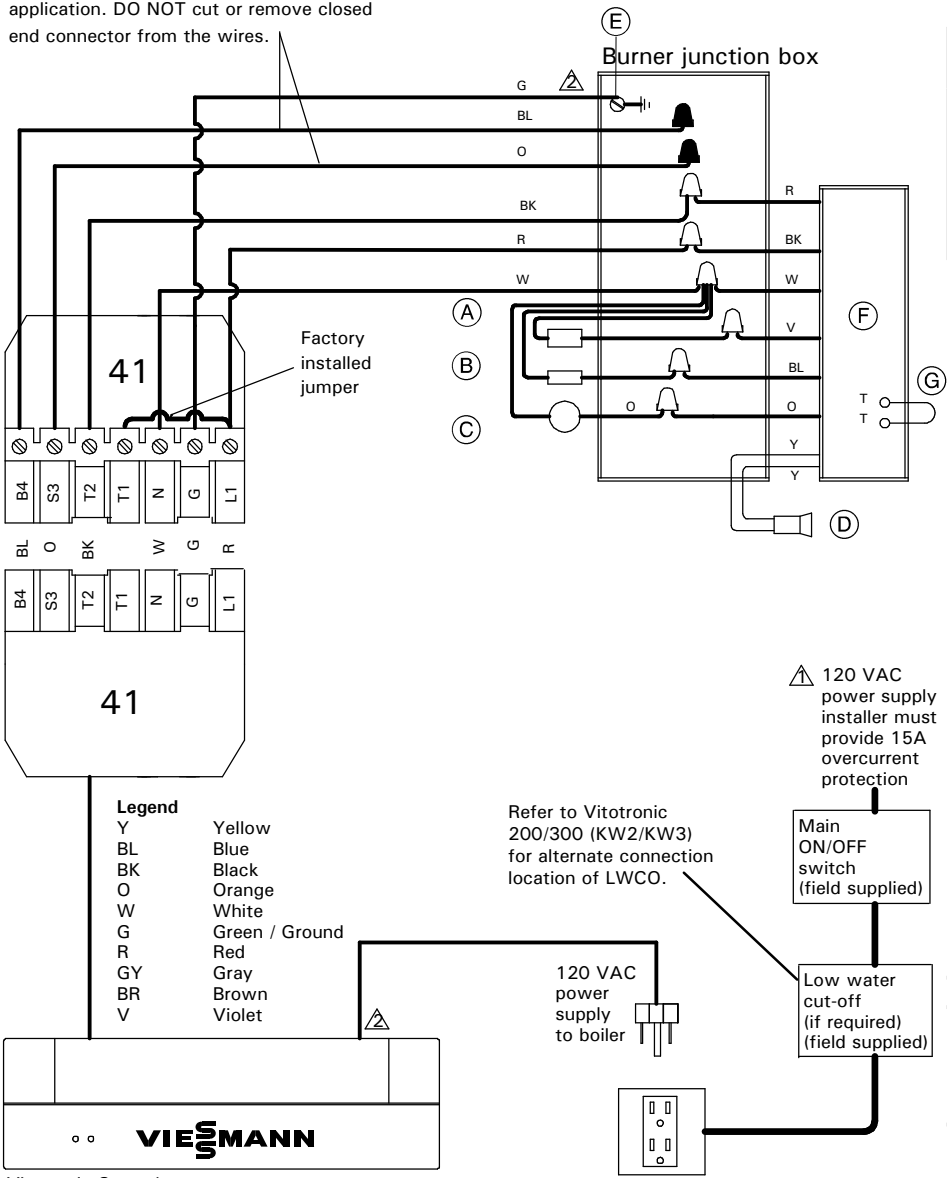
Wiring diagram (with Vitotronic control)


**WARNING**

Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.

- Installations must follow these codes and requirements:
- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
  - In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.
- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
  - Provide electrical ground at boiler as required by codes.

Blue and orange wires not used in this application. DO NOT cut or remove closed end connector from the wires.




**WARNING**

Ensure that the burner cycles ON and OFF on proper call for heat before leaving the job site. Failure to do so may lead to boiler runaway situation, which may lead to property damage, personal injury or death.

**Legend**

Y	Yellow
BL	Blue
BK	Black
O	Orange
W	White
G	Green / Ground
R	Red
GY	Gray
BR	Brown
V	Violet

**VITOTRONIC**

Vitotronic Control  
(Refer to corresponding Vitotronic Control manual)

Fig. 8

## Burner Set-up (Beckett burner with GeniSys primary control)

### Wiring diagram (Vitorond 100 with Beckett (NX) burner, GeniSys control and Vitotronic control)

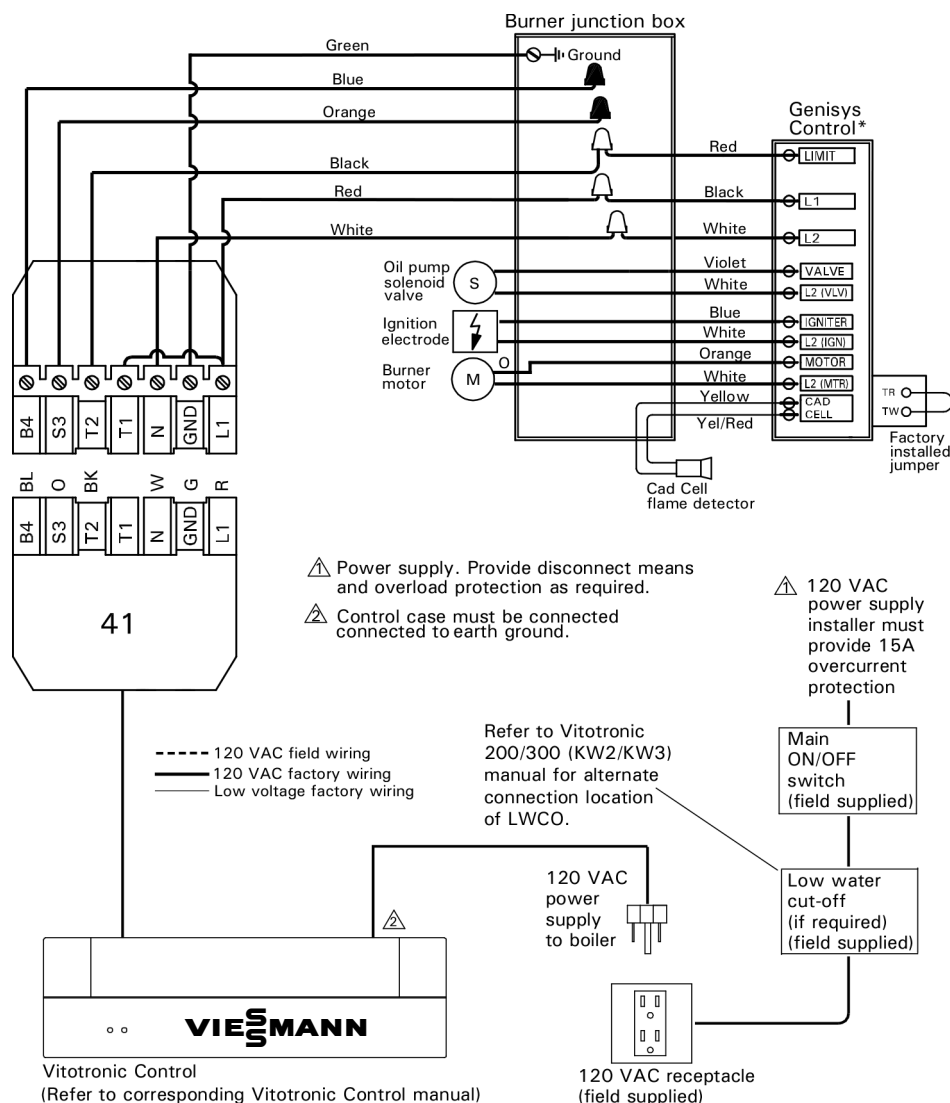
#### **! WARNING**

**Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.**

*Installations must follow these codes and requirements:*

- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.

- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.



#### **! WARNING**

**Ensure that the burner cycles ON and OFF on proper call for heat before leaving the job site. Failure to do so may lead to boiler runaway situation, which may lead to property damage, personal injury or death.**

\* Genisys 7505P-1530 series primary control with post-purge (factory default setting: 30 sec. - can be field adjusted; see Beckett burner manual).

Fig. 9

## Burner Set-up (Riello)

### Electrical connections (with Aquastat control)

#### WARNING

Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.

Installations must follow these codes and requirements:

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- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

- ▶ All field supplied nominal 120 VAC voltage wiring must be sheathed in a flexible metal conduit.
- ▶ Disconnect means, overload protection and low water cut-off must be provided as required by local codes.
- ▶ Connect incoming line voltage HOT (L1) wire to terminal L1, and N to terminal L2 of the Honeywell high limit control (see wiring diagram on page 12).

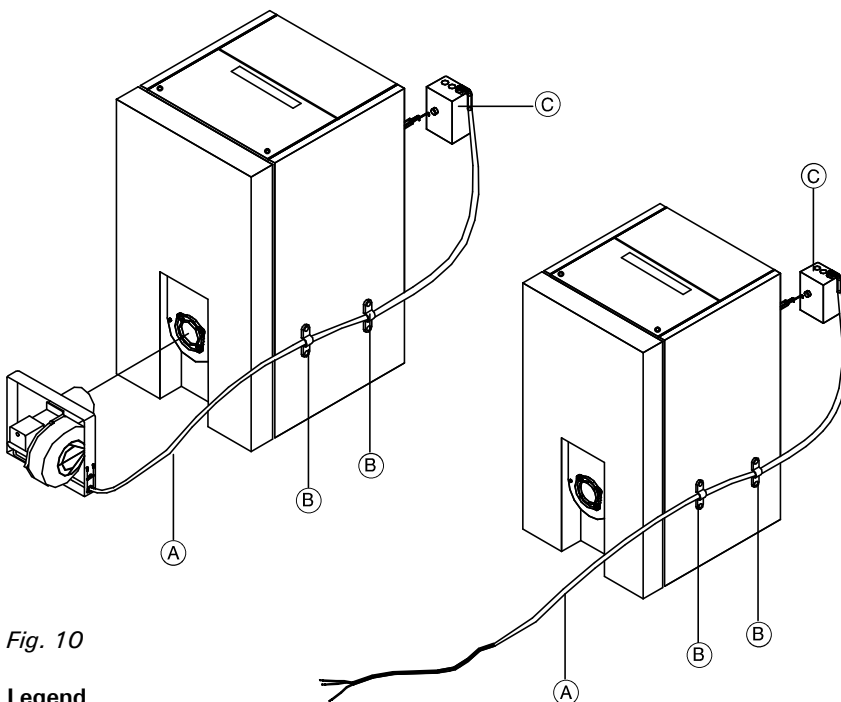


Fig. 10

#### Legend

- (A) Burner and control harness, (see wiring diagram on page 12)
- (B) Cable strap (supplied)
- (C) Honeywell high limit control

#### Burner wiring

1. Secure control harness (A) using 2 supplied cable straps (B).

#### WARNING

Ensure that burner wiring harness is properly attached and secured to the boiler side panel using the supplied cable straps as depicted above. The cable strap must be coiled on the boiler side panel so that no slack is left, allowing the burner/boiler door to be swung open without disconnecting the burner wiring harness from the burner. Failure to heed this warning may result in personal injury.

#### Room thermostat wiring

1. Install thermostat on inside wall away from influences of drafts, hot or cold water pipes, lighting fixtures, television, sun rays or fireplaces.
2. Follow instructions supplied with room thermostat. If it has a heat anticipator, set heat anticipator in thermostat to match power requirements of equipment connected to it. Boiler wiring diagrams give setting for standard equipment.

## Burner Set-up (Riello) *(continued)*

### Electrical connections (with Aquastat control) *(continued)*

#### **WARNING**

**Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.**

*Installations must follow these codes and requirements:*

- National Electrical Code, ANSI/NFPA 70, latest edition and any additional national, state or local codes.
- In Canada, CSA C22.1 Canadian Electrical Code Part 1 and any local codes.
- Wiring must be N.E.C. Class 1. If original wire as supplied with boiler must be replaced, type 105°C wire or equivalent must be used. Supply wiring to boiler and additional control wiring must be 14 ga. or heavier.
- Provide electrical ground at boiler as required by codes.

#### Burner wiring harness (supplied)

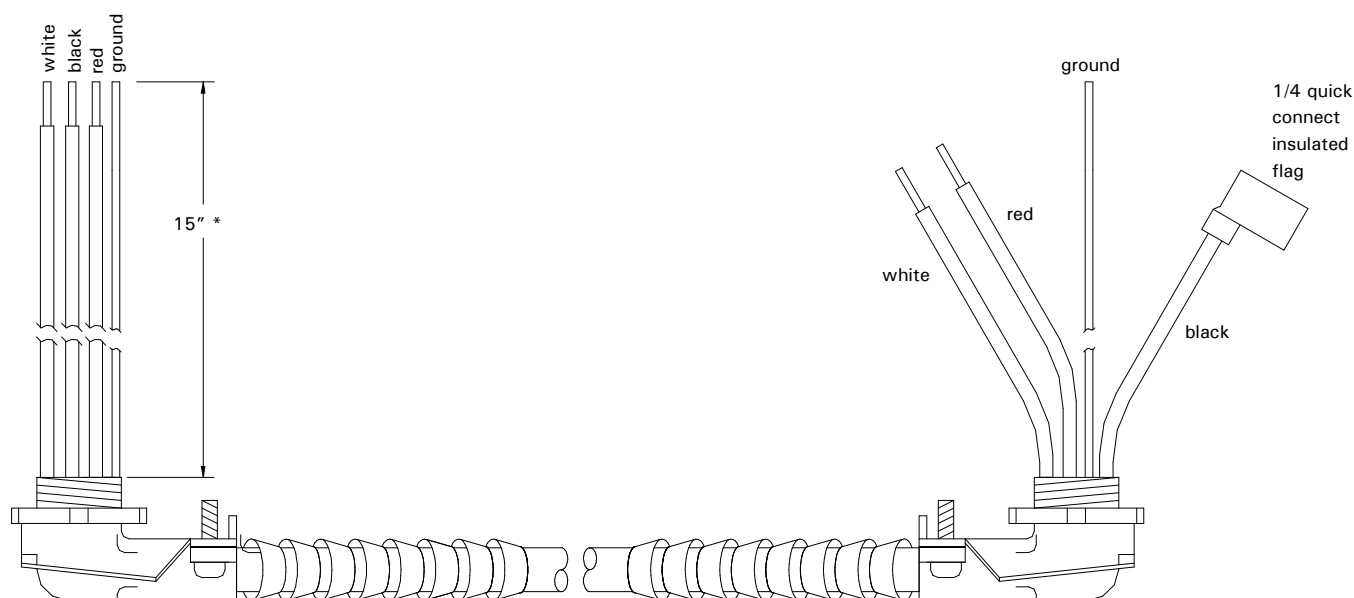


Fig. 11

\* If Beckett burner is being installed, cut this length to 6" for connection to burner junction box (located under the burner primary control).

## Burner Set-up (Riello) *(continued)*

### Wiring diagram (with Aquastat control) with outdoor reset module

#### **! WARNING**

Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.

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- Disconnect means, overload protection and low water cut-off must be provided as required by local codes.
- Connect incoming line voltage HOT (L1) wire to terminal L1, and N to terminal L2 of the Honeywell high limit control (see wiring diagram below).

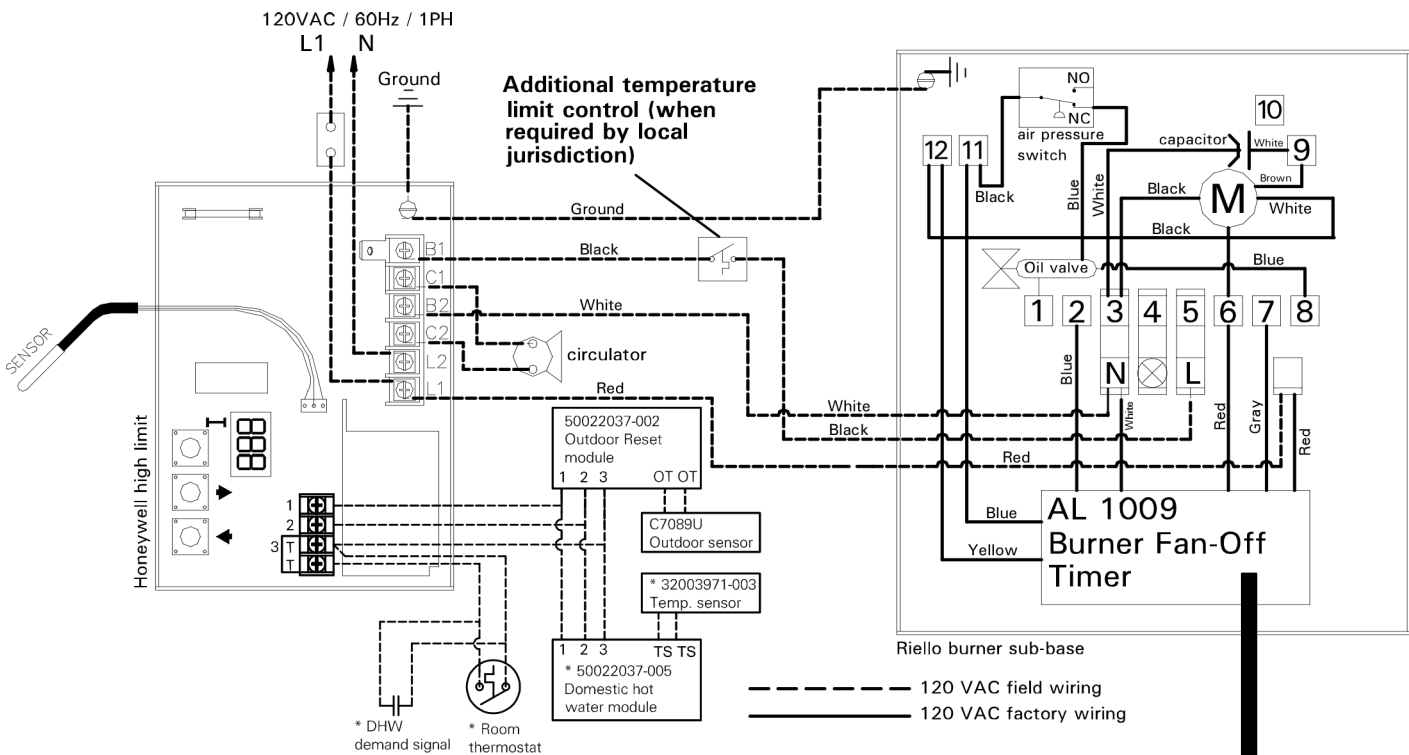


Fig. 12

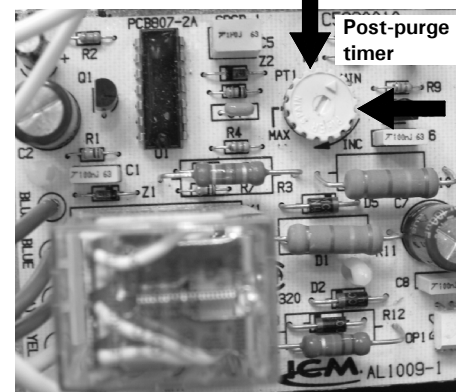
#### **! CAUTION**

A field supplied manual reset high limit control must be installed at the outlet pipe of the boiler to interrupt burner operation should the factory supplied high limit control fail. This field supplied high limit control must be set 20°F above the setting of the factory supplied high limit control. The setting of this field supplied high limit control must never be greater than 220°F.

Post-purge timer setting in conjunction with Honeywell Aquastat Model L7248C1006

#### **IMPORTANT**

If "Err4" fault occurs, set post-purge timer to a maximum of 45 seconds. Exceeding 45 seconds may lead to LED error code "Err4" on the older version of the Honeywell Aquastat.



## Burner Set-up (Riello)

### Electrical connections (with Vitotronic control)

#### **WARNING**

Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.

*Installations must follow these codes and requirements:*

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- Provide electrical ground at boiler as required by codes.

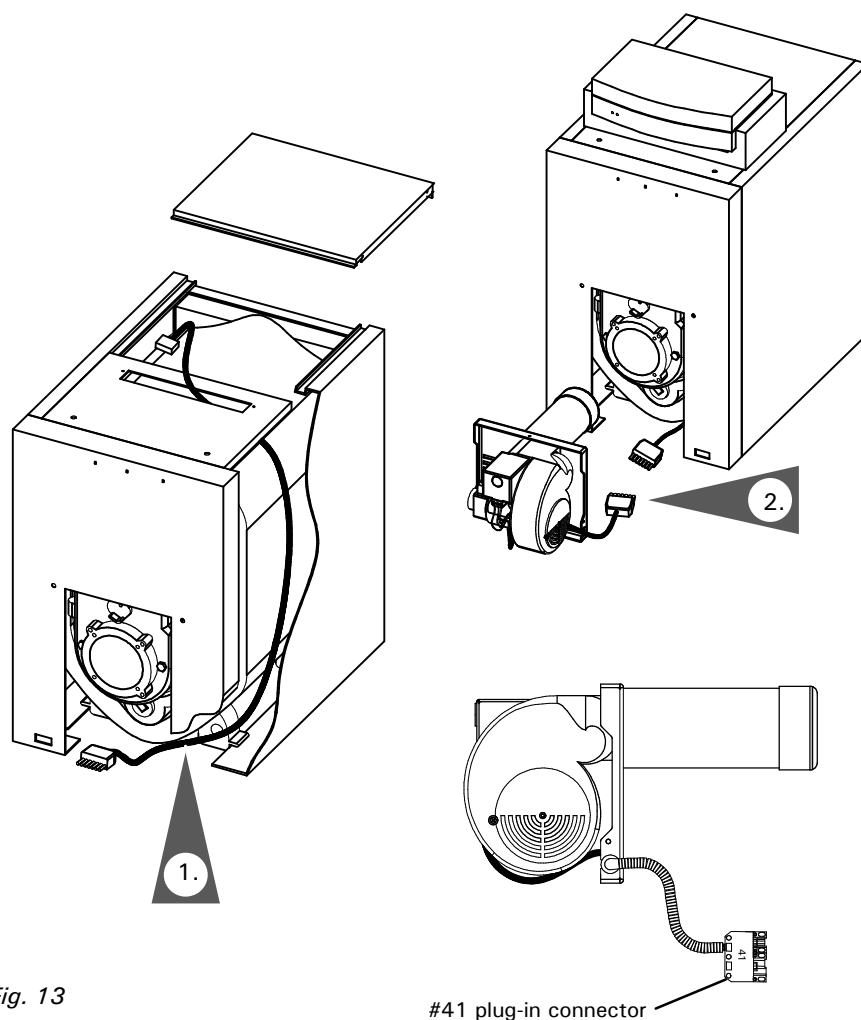


Fig. 13

#41 plug-in connector

#### Room thermostat wiring

1. Install thermostat on inside wall away from influences of drafts, hot or cold water pipes, lighting fixtures, television, sun rays or fireplaces.
2. Follow instructions supplied with room thermostat. If it has a heat anticipator, set heat anticipator in thermostat to match power requirements of equipment connected to it. Boiler wiring diagrams give setting for standard equipment.

#### Electrical connections

1. Run the #41 plug-in connector cable of the Vitotronic control down behind the front panel of the boiler and out through the bottom. (Fig. 11)
2. Connect the female #41 plug of the burner to the male #41 plug of the Vitotronic control. (Fig. 11)

## Burner Set-up (Riello) *(continued)*

### Electrical connections (with Vitotronic control) *(continued)*



#### **WARNING**

**Electric shock hazard. Can cause severe personal injury or loss of life if power source, including service switch on boiler, is not disconnected before installing or servicing.**

*Installations must follow these codes and requirements:*

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- Provide electrical ground at boiler as required by codes.

#### Burner wiring harness (supplied)

Closed end connectors are factory installed on RED, ORANGE and BLUE wires. These RED, ORANGE and BLUE wires may or may not be used in your burner application. See wiring diagram in this manual which is specific to your burner application. Do not remove or cut any of the closed end connectors of the RED, ORANGE or BLUE wires, unless it is necessary to do so. RED wire is live (120VAC) at all times. Do not remove or cut its closed end connector unless it is necessary to do so. Failure to heed the above instructions may cause severe personal injury or loss of life.

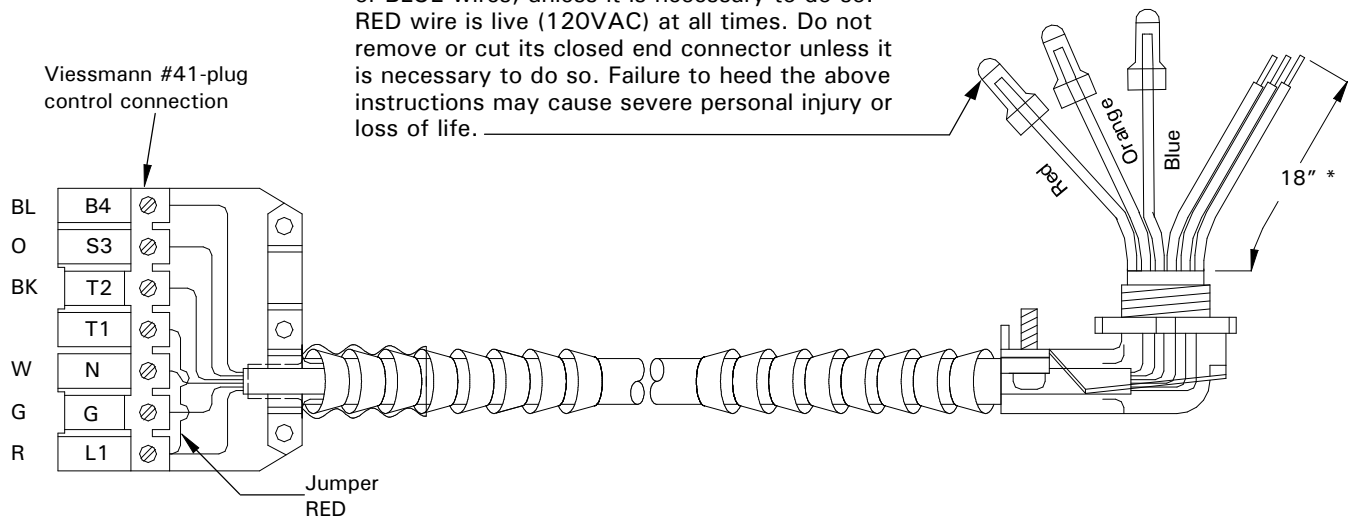


Fig. 14

#### Legend

BL	Blue
O	Orange
BK	Black
W	White
G	Green / Ground
R	Red



## Burner Set-up (Riello) *(continued)*

### Wiring diagram (with Vitotronic control) *(continued)*

#### **! WARNING**

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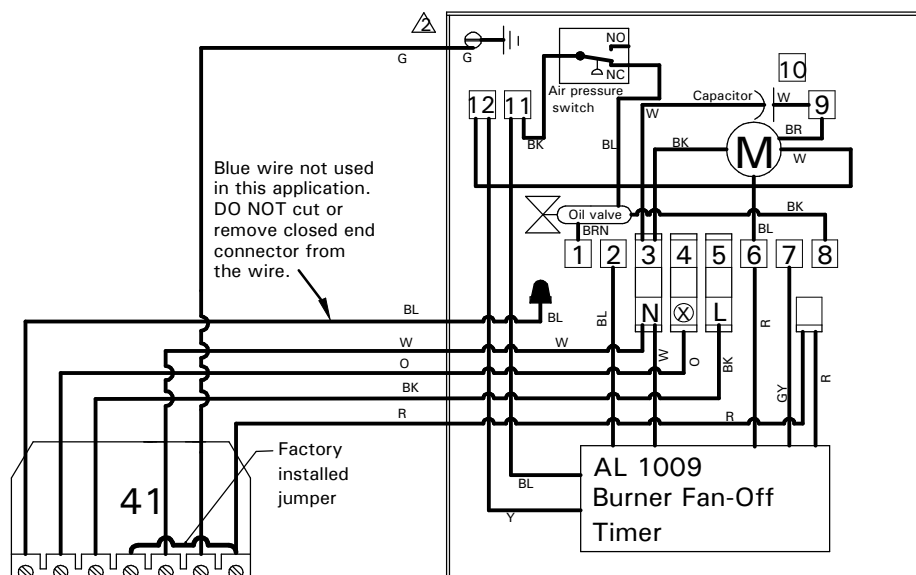
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- Provide electrical ground at boiler as required by codes.

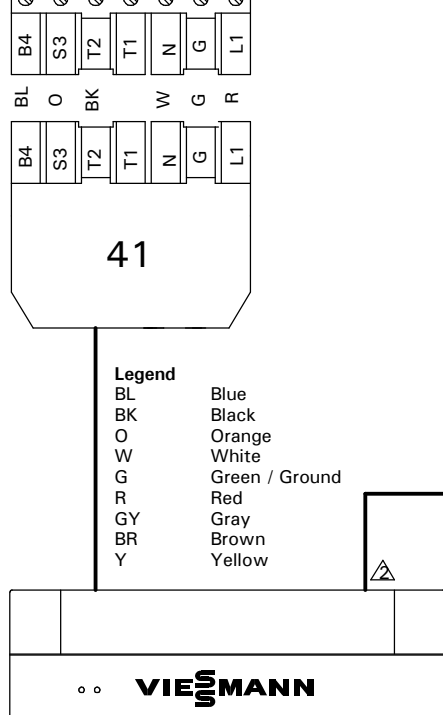
#### **! WARNING**

**Ensure that the burner cycles ON and OFF on proper call for heat before leaving the job site. Failure to do so may lead to boiler runaway situation, which may lead to property damage, personal injury or death.**



Riello burner sub-base

- ⚠ Power supply. Provide disconnect means and overload protection as required.
- ⚠ Control case must be connected to earth ground.



Vitotronic Control  
(Refer to corresponding Vitotronic Control manual)

- ⚠ 120 VAC  
Power supply  
installer must  
provide 15A  
overcurrent  
protection

Main  
ON / OFF  
switch  
(field supplied)

Low water  
cut-off  
(if required)  
(field supplied)

Refer to Vitotronic  
200 / 300 (KW2 / KW3)  
manual for alternate  
connection location of  
LWCO.

120 VAC  
power  
supply  
to boiler

120 VAC receptacle  
(field supplied)

## Initial Start-Up

### Beckett burner calibration

Boiler model	Model No.	VR1-22	VR1-27	VR1-33
Burner model	Beckett	NX-VI 701	NX-VI 702	NX-VI 703
Fuel type	oil	No. 2 fuel oil		
Pump pressure	psig	190	175	175
Oil nozzle	Danfoss	n.a.	0.60x60°AS	n.a.
	Delavan	0.50x60°B	n.a.	0.75x60°A/W
	Hago	0.50x60°B	0.60x60°B	n.a.
Oil nozzle flow rate	GPH@psig	0.65@190	0.75@175	1.00@175
Air tube length	inches	7	7	7
	mm	178	178	178
Air tube insertion	inches	3¼	3¼	3 <sup>5</sup> / <sub>8</sub>
	mm	83	83	92
Air tube combination		NX70LP	NX70LP	NX70LJ
Head type		6-slot	6-slot	9-slot
Head setting		2.00	2.50	3.25
Air setting		see head setting		
Static plate		n.a.		
Baffle		n.a.		
Fuel pump		21844	21844	21844
Flange		32073	32073	32073

## Initial Start-Up

### Riello burner calibration\*<sup>1</sup>

Boiler model	Model No.	VR1-22	VR1-27 * <sup>1</sup>	VR1-33
Burner model	Riello 40 Series	BF3	BF3 * <sup>1</sup>	BF5
Fuel type	oil	No. 2 fuel oil		
Pump pressure	psig	175	175	140
Oil nozzle	Danfoss	n.a.	n.a.	n.a.
Oil nozzle	Delavan	0.5x60°xSS	0.6x60°xW * <sup>3</sup>	0.85x60°xW * <sup>2</sup>
Oil nozzle	Hago	n.a.	n.a.	n.a.
Oil nozzle flow rate	GPH@psig	0.65@175	0.75@175	1.00@140
Air tube length	inches	7	7	6 <sup>5</sup> / <sub>16</sub>
	mm	178	178	160
Air tube insertion	inches	4 <sup>5</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	4 ¼
	mm	118	118	108
Turbulator setting		0.0	1.0	1.0
Air gate setting		3.7	5.0	4.0

### IMPORTANT

\*<sup>1</sup> For VR1-27 boiler, replace installed nozzle with nozzle packaged with Riello burner.

\*<sup>2</sup> Factory-installed nozzle.

\*<sup>3</sup> Nozzles must be installed by installer.

**Note:** Riello oil burners are factory set for Vitorond 100, VR1-22, and -33 boilers and should only require minor adjustments. Install appropriate nozzle and set the burner for model VR1-27.



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